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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,407	01/23/2004	Shenggao Liu	005950-844	9511

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EXAMINER	
HAMILTON, CYNTHIA	
ART UNIT	**PAPER NUMBER**
1752	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,407	LIU ET AL.	
	Examiner	Art Unit	
	Cynthia Hamilton	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/5/05, 12/22/05, 02/17/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-49,52-57,59-62,65-69,71 and 73-80* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *67-69* is/are allowed.

6)☒ Claim(s) *43-49,52-57,59-62,65,66,71 and 73-80* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *43-49,52-57,59-62,65-69,71 and 73-80* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/5/05, 12/22/05, 2/17/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicants have cancelled claims 1-42, 50-51, 58, 63-64, 70, 72 and 80-96. This is inclusive of all of the non-elected claims set forth in the last Office Action. All the claims that remain are part of the originally elected invention of Group VI, claims 43-83. Thus, applicants have removed issues with respect to traversed election of June 15, 2005 by removing all claims directed to non- elected groups.

2. Applicants have amended independent claims 47and 54 to require *for the first time* the presence of a "base resin having a monomer with a diamondoid-containing pendant group higher than adamantane". Thus, the amended claims and those dependent upon them previously rejected over prior art wherein no such "diamondoid-containing pendant group higher than adamantane" is required present now are limited in a manner to exclude such prior art rejections of record in the last Office Action. The examiner makes clear on the record that this limitation with respect to these claims was made by applicants in response to the Office Action mailed September 9, 2005.

3. Claims 43, 45-49, 52-57, 60-61, 73/{43, 47, 54}, 74/{43, 47, 54}, 75/{43, 47, 54}, 77/75/{43, 47, 54}, 78/{43, 47, 54}, 79/{43, 47, 54}, and 80/{43, 47, 54} are rejected under 35 U.S.C. 102(e) as being anticipated by Dammel (2005/0147915 A1). With respect to instant claims 43, 45-49, 52-57, 60-61, 73/{43, 47, 54}, 74/{43, 47, 54}, 75/{43, 47, 54}, 77/75/{43, 47, 54}, 78/{43, 47, 54}, 79/{43, 47, 54}, and 80/{43, 47, 54}, Examples 5-7 of Dammel present compositions which are species that anticipate the instant compositions. A rough comparison in table form is given below.

	Example 5			
monomer used		mole %		instant

2-methyl-2-adamantane methacrylate	MAdMa	40%	b adamantane	b
alpha-gamman butyrolactone methacrylate	GBLMA	35%	P	a
diamantane	mixture hydroxydiamantane methacrylates	25%	C diamantanes	c
additives	triphenylsulfononium nonafluorobutane sulfonate (TSP-Nf)		photoacid gen	2%
	diethanolamine		base	
	pgmea		solvent	
	Fc-443 surfactant			
	claims			
	43, 45-49, 52-57, 60-61,73-75, 77-80			
	Example 6			
	3-methyl-3diamantane methacrylate	40%		c
alpha-gamma butyrolactone methacrylate	GBLMA	35%	p	a
hydroxyadamantane methacrylate	HAdMA	25%		b
additives	triphenylsulfononium nonafluorobutane sulfonate (TSP-Nf)		photoacid	2%
	diethanolamine		base	
	pgmea		solvent	
	Fc-443 surfactant			
	claims			103
	43, 45-47, 49, 52-53, 54, 56-57, 60-61, (73-75, 77-80)/43'47'54'			44
	Example 7			

	3-methyl-3 diamantane methacrylate	40% c	
alpha-gamma butyrolactone methacrylate	GBLMA	35% a	p
	isomeric hydroxydiamantane methacrylates	25% c	
	claims 43, 45-47, 49, 52-54, 56-57, 60-61, (73-75, 77-80)/43'47'54		

"A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. *In re Slayter*, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); *In re Gosteli,* 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989). The examiner found insufficient support for these instant claims in US Provisional application 60/508222 to meet the requirements of 35 USC 112, thus the effective filing date for all of the instant claims under rejection in this paragraph is January 23, 2004.

4. Claims 43-49, 52-57, 59-62, 65-66, 73/[43, 47, 54 or 62] to 80/[43, 47, 54 or 62] rejected under 35 U.S.C. 103(a) as being unpatentable over Dammel (US 2005/0147915 A1). Dammel teaches the instant invention wherein photoresist compositions set forth in Examples 1-3 teach all but the specific percentages of acid cleavable monomers, adamantanes, diamantanes, triamantanes and cyclic lactone triamantanes which are set forth in [0045]. However, the use of any of the acrylates or methacrylates formed from the triamantanes and diamantanes of Dammel's figures 1-9 would have been prima facie obvious in view of the teachings of Dammel et al to do so in the percentages set forth in [0070] wherein they are present in a most preferred range of 55 to 30 mole % as "higher adamantane containing monomers" with the rest being acid labile group monomers and others as set forth on pages 7-8. The additives for the photoresist are inclusive of the acid generating compounds set forth in [0072], the solvents set forth in [0073],

the additives set forth in [0074-0075] as well as the examples of Dammel et al. Thus, with respect to instant claims 43-49, 52-57, 59-62, 65-66, 73/[43, 47, 54 or 62] to 80/[43, 47, 54 or 62], the compositions of Dammel et al make prima facie obvious the instant compositions in the ranges of monomers set forth because In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Werthheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 UAPQ2d 1934 (Fed. Cir. 1990). See particularly MPEP 2144.05.

5. Applicant's arguments filed February 17, 2006 have been fully considered but they are not persuasive.

Applicants' arguments are as follows:

> The claims have also been rejected over Dammel (U.S. published application 2005/0147915). Dammel has a filing date of December 29, 2003. The present application was filed January 23, 2004, but claims the benefit of priority of U.S. provisional application Serial No. 60/508,222, filed October 1, 2003. Hence, Dammel is not prior art to the present application.

The examiner's response to applicant's arguments is as follows:

a. As stated in the Office Action mailed September 20, 2005, the examiner found insufficient support for these instant claims in US Provisional application 60/508222 to meet the requirements of 35 USC 112, thus the effective filing date for all of the instant claims under rejection in this paragraph is January 23, 2004.

b. Applicant has not pointed out where the claims at issue are supported in the US Provisional application 60/508222 , nor does there appear to be a written description of

the claim limitations beyond that of diamantane positive-working photoresists found in the provisional as filed. It is incumbent upon applicant to show where such support is found in the provisional document.

> Under 35 U.S.C. 119(e), the written description and drawing(s) (if any) of the provisional application must adequately support and enable the subject matter claimed in the nonprovisional application that claims the benefit of the provisional application. In *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1294, 63 USPQ2d 1843, 1846 (Fed. Cir. 2002), the court held that for a nonprovisonal application to be afforded the priority date of the provisional application, "the specification of the provisional must 'contain a written description of the invention and the manner and process of making and using it, in such full, clear, concise, and exact terms,' 35 U.S.C. § 112 ¶1, to enable an ordinarily skilled artisan to practice the invention claimed in the nonprovisional application."

c. The later-filed application must be an application for a patent for an invention that is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, US Provisional application 60/508222, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application as set forth above.

d. The rejections in view of Dammel (2005/0147915 A1) stand for reasons of record because applicants failed to show support in Provisional application 60/508222 for the claimed invention.

6. Claims 43-49, 52-57, 59-61, 75/(43,47,52), 77/(43,47,52), 78/(43,47,52), 79/(43,47,52), 80/(43,47,52), 81/ (43,47,52), and 82/(43,47,52) are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoai et al (6,245,485 cited by applicants) in view of Liu et al (WO 02/057201 A2). With respect to instant claims 43-49, 52-57, 59-61, 75/(43,47,52), 77/(43,47,52), 78/(43,47,52), 79/(43,47,52), Aoai et al teach species of the instant invention but for c being greater than zero in the instant resin. What Aoai et al teach is a positive resin composition having a polycyclic alicyclic group and a carboxyl group and a compound generating an acid. The object of Aoai et al is stated to be in col. 3, lines 40-52:

Accordingly, the object of the present invention is to provide a positive resist composition suitable for the exposure using a light source of 220 nm or less, particularly an ArF excimer laser beam (193 nm). More specifically, the object of the present invention is to provide a positive resist composition which ensures, on use of an exposure light source of 220 nm or less, high sensitivity, good resolution, sufficiently high resistance against dry etching, satisfactory adhesion to the substrate, and superior developability even with a developer conventionally used for resists (for example, a 2.38% aqueous tetramethylammonium hydroxide solution).

In col. 5, lines 5-8 of Aoai et al, the positive resist composition is disclosed to be the resin (1) as component (B) further containing a group capable of decomposing by the action of an cid to increase solubility in a alkali developer. In the paragraph bridging col. 3-4, resin (B) is described as having a "polycyclic-type alicyclic group" and a carboxyl group. In col. 10, lines 40-46, the "polycyclic-type alicyclic group" is disclosed as preferably an alicyclic group having 5 or more

carbon atoms, which may have a substituent, such as ... a tetracyclo-alicyclic group, more preferably having from 6 to 30 carbon atoms, still more preferably from 7 to 25 carbon atoms, which may have a substituent." Further, working examples of the positive resins of Aoai et al have as (B) resin at col. 87-89, those with adamantane groups. Thus, the smallest diamondoid structure is made of use by Aoai et al with acid degradeable units such as in p-6 resin and p-8 resin. These alicyclics in Aoai et al are used over aromatic groups because they are more transparent at the smaller wavelengths used for imaging and have etch resistance like the aromatics thus helping the transparency while keeping the etch resistance. In Aoai et al, see particularly the Abstract, paragraph bridging col. 2-3, col. 3, col. 9, lines 20-34, col. 9, lines 65-68, col. 10, lines 40-46, and col. 19, lines 50-65. With respect to the use of diamantane or triamantane or higher diamondoid resins as resin (B) in Aoai et al, Liu et al teach on page 107, lines 5-19, that the higher diamondoids have etch resistance moieties like the adamantane polymers and would be expected to have even better glass transition temperatures and high deposition temperatures. Thus, with respect to instant claims 43-49, 52-57, 59-61, 75/(43,47,52), 77/(43,47,52), 78/(43,47,52), 79/(43,47,52), the use of any of the diamondoid family for the "polycyclic-type alicyclic group" in Aoai et al would have been prima facie obvious to obtain even better etch resistance while maintaining the transparency needed. Diamantyl groups have 14 carbon atoms, triamantyl groups have 18 carbon atoms, tetramantanes have 22 carbon atoms, pentamantanes have 26 or 25 carbons and hexamantanes have 26, 29 or 30 carbon atoms as shown by Liu et al in Fig 1.A. Liu et al in Example 73, pages 105-106 discuss the advantages of transparency using their diamondoids. On pages 75-86, Liu et al teach how to form the esters of the diamondoids from dibromonated or mono brominated diamondoids inclusive of acrylated

diamondoids. The teachings of Aoai et al with respect to adamantyl groups then the higher diamondoids makes prima facie obvious the range from adamantyl through the higher diamondoids would work as transparent etch resistant groups for the chemically amplified positive resists known in the art. With respect to instant claims 75 and 77-78, the compounds taught by Aoai et al to be decomposable to acid on irradiation of an active light ray or radiation are inclusive of all of those set forth starting at the bottom of col. 64 and going to col. 81. With respect to instant claim 79, in col. 81, starting in line 23, Aoai et al teach the optional use of acid decomposable dissolution inhibing compounds, dyes, plasticizer, surface active agent, photosnsitizer, organic basic compound d and a compound which accelerates the solubility of the developers. With respect to instant claim 80, the solvents taught by Aoai et al for their photoresists are set forth in col. 84, lines 7-20 and are as follows:

ethylene dichloride, cyclohexanone, cyclopentanone, 2-heptanone, .gamma.-butyrolactone, methyl ethyl ketone, ethylene glycol monomethyl ether, ethylene glycol monoethyl ether, 2-methoxyethyl acetate, ethylene glycol monoethyl ether acetate, propylene glycol monomethyl ether, propylene glycol monomethyl ether acetate, toluene, ethyl acetate, methyl lactate, ethyl lactate, methyl methoxypropionate, ethyl ethoxypropionate, methyl pyruvate, ethyl pyruvate, propyl pyruvate, N,N-dimethylformamide, dimethyl sulfoxide, N-methylpyrrolidone and tetrahydrofuran. Thus, the use of any of these solvents and additives with the resists of Aoai et al would have been prima facie obvious.

7. Applicant's arguments filed February 17, 2006 have been fully considered but they are not persuasive.

Applicants' arguments are as follows:

> The 103 rejection based on the combination of Aoai et al. and Liu et al. is defective because there is no appropriate motivation to combine the teachings of those documents. As recognized by the Office Action, the object of Aoai et al. is to provide a positive resist

composition suitable for the exposure using a light source of 220 rlm or less, particularly an ATF excimer laser beam (193 nm). More specifically, the object of the present invention is to provide a positive resist composition which ensures, on use of an exposure light source of 220 nm or less, high sensitivity, good resolution, sufficiently high resistance against dry etching, satisfactory adhesion to the substrate, and superior developability even with a developer conventionally used for resists (for example, a 2.38% aqueous tetramethylammonium hydroxide solution). Liu et al. relates to polymerizable higher diamondoid derivatives. Liu et al. notes that adamantane-containing polymers show high glass transition temperatures and high deposition temperature and good film-forming properties, and then makes the general statement that "polymers based on higher diamondoids would be expected to have even better properties" (page 107). However, Liu et al. has no recognition whatsoever that the higher diamondoid derivatives would fulfill the specific characteristics which are the object of Aoai et al, for example, to provide a positive resist composition which ensures, on use of an exposure light source of 220 nm or less, high sensitivity, good resolution, sufficiently high resistance against dry etching, satisfactory adhesion to the substrate, and superior developability even with a developer conventionally used for resists. Consequently, there is insufficient motivation to combine the teachings of Aoai et al. and Liu et al.

The examiner's response to applicant's arguments is as follows:

The rejection as given on September 20, 2005 gave sufficient reason for motivation to use the monomers of Liu et al . Applicants have not addressed in their arguments the scope of Aoai et al with respect to the "polycyclic-type alicyclic group" found preferred and the issue of the known similarity of adamantyl groups, diadamantyl groups and higher diamondoid groups as shown by Liu et al. It is this common structural nature of the diamondoids upon which the examiner relies to relate an adamantyl group to a diamantyl group to other diamondoid groups. Thus, the similarity of structure combined with the knowledge such compound structure is available in the art combined with the general knowledge of similar properties as taught by Liu et al makes prima facie obvious their use in view of Aoai et al describing a genus so inclusive of the first member of the diamondoid group.

The rejection stands.

8. Claims 73/43 and 73/62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 73 recites the limitation "any of the diamondoid containing monomers"" in line 2. There is insufficient antecedent basis for this limitation in the claims 43 and 62 when claim 73 depends upon them. No monomer is cited in claims 43 and 62.

9. Applicant's arguments filed February 17, 2006 have been fully considered but they are not persuasive.

Applicants' arguments are as follows:

> Claim 73 and its dependent claims were alleged to be indefinite because of the recitation of "any of the diamondoid containing monomers" in claim 73. In particular, it was alleged that there was insufficient antecedent basis for that phrase. Such, however, is not the case. While the words "diamondoid containing monomer" are not found in independent claims 43, 47, 54, 62, 67 or 71, it is clear from the structures set forth in those claims and the associated explanatory text in the specification that the recitation of "any of the diamondoid containing monomers" in claim 73 is referring to the diamondoid monomer units of the polymer structures set forth in claims 43, 47, 54 and 62, and to the recited monomers in claims 67 and 71. Hence the meaning of these claims is clear.

Examiner's response to applicant's arguments:

Applicants amended claims 47 and 54 to include reference to a "diamondoid monomer" claim 73 will be read in reference to said monomer. However, applicants did not amend claims 43 and 62 thus. If applicants mean the diamondoid monomer units of the polymer structures set

forth in claims 43 and 62 then applicants need to set forth such wording in claim 73. The diamondoid monomer units of the polymer structures set forth in claims 43 and 62 are not diamondoid monomers as cited in claim 73. The examiners notes that claims 67 and 71 were not and are not at issue in this rejection. The examiner notes for the record that the only monomer cited in claims 47 and 54 is that of "a monomer with a diamondoid-containing pendant group higher than adamantane.

10. Claims 47-49, 54-57, 59-61 and claims 73-80 as dependent upon claims 47 and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended claim 47 to have a "base resin having a monomer with a diamondoid-containing pendant group higher than adamantane, the base resin represented by the general formula:". The amendment to claim 54 is essentially the same. It is unclear if the base resin is made from the monomer in question or has a monomer added to the polymer set forth. The use of monomer when referencing a polymer is found confusing at this point.

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

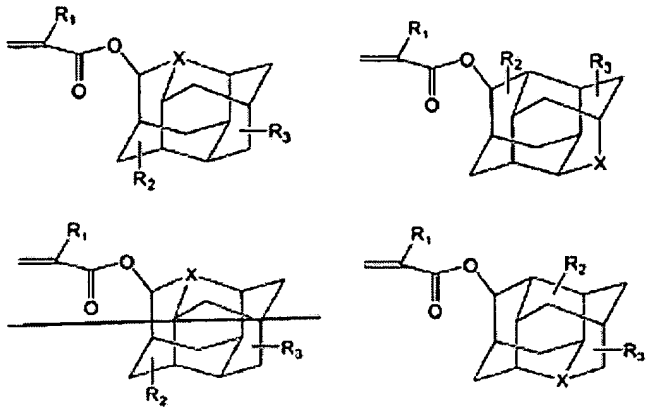
12. Claims 47-49, 54-57, 59-61 and claims 73-80 as dependent upon claims 47 and 54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no disclosure

found to the mixing of a monomer with the polymer of claims 47-49, 54-57, 59-61 and claims 73-80 as dependent upon claims 47 and 54. If applicants meant that the polymer was only inclusive of such polymer as made from such monomers then there is support for that as cited by applicants. Because the meaning of the claim language is unclear, this rejection with respect to support is made.

13. Claim 71 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which

it is most nearly connected, to make and/or use the invention. Claim 71 is as follows:

71. (Currently amended) ~~The photoresist composition of claim 70, wherein the~~ A positive-acting photoresist composition comprising a base resin ~~is~~ polymerized from any of the following monomers:



wherein R_1 is selected from the group consisting of –H and $–CH_3$;

R_2 is selected from the group consisting of –H, an alkyl group having from 1 to 4 carbon atoms, and an alkoxy group having from 1 to 4 carbon atoms;

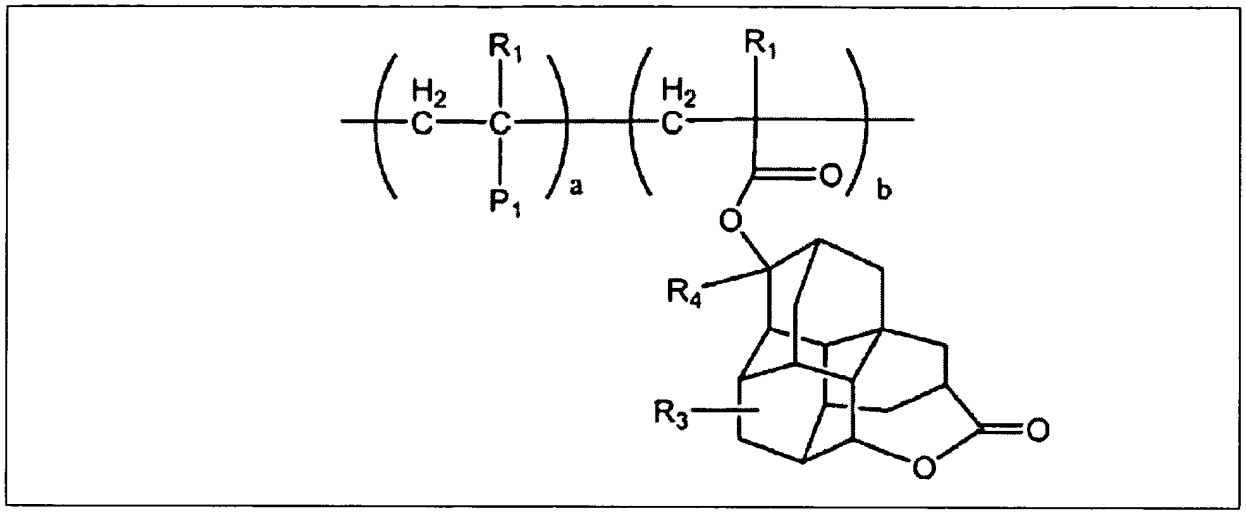
R_3 is –H, or a hydrophilic-enhancing moiety selected from the group consisting of a hydroxyl group –OH, a keto group =O, carboxylic acid group –COOH, and alkoxy group $–OR_4$, and a group $–OC(O)OR_4$;

R_4 is $–CH_3$ or $–C_2H_5$;

X is selected from the group consisting of oxygen, nitrogen, boron, and sulfur.

.The sole required member of the composition of claim 71 is the base resin described. The examiner found no indication within the specification or original claims as to how to make the diamantane like "heterodiamondoid" groups wherein X is oxygen, nitrogen, boron or sulfur. Since by applicant's own admission there is little or no art on the diamantane derivatives, the worker of ordinary skill in the art would not be aware of how to make the heterodiamondoids of claim 71 in order to make the base resin required for the composition. Thus, the original

specification and claims are held non-enabling with respect to the ability to make the base resin required. The examiner notes that X= C(=O)O- as seen in claim 62 as shown below:



is not the same as X=O and does not yield a diamondoid structure as found in claim 71 wherein X is one atom and one atom only in the ring structure. A showing of sufficient fact as to how the worker of ordinary skill in the art would know from the instant specification as well as the prior art how to make the base resins of claim 71 would remove this rejection.

14. Applicant's arguments filed February 17, 2006 have been fully considered but they are not persuasive.

Applicants' arguments are as follows:

Enablement rejection under 35 U.S.C. § 112, first paragraph

Claim 71 was rejected under the first paragraph of 35 U.S.C. § 112 as allegedly being based on a nonenabling disclosure. This rejection is traversed.

Claim 71 recites a positive-acting photoresist composition comprising a base resin polymerized from various diamondoid monomers which contain oxygen, nitrogen, boron or sulfur in the ring structure of the diamondoid. Methods for making diamondoid derivatives are described, for example, at pages 15-29 of the specification.

According to *In re Marzocchi*, 169 USPQ 367, 370 (1971):

> The only relevant concern of the Patent Office under these circumstances should be over the *truth* of any such assertion. The first paragraph of § 112 requires nothing more than objective enablement. How such a teaching is set forth, either by the use of illustrative examples or by broad terminology, is of no importance.
>
> As a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented *must* be taken as in compliance with the enabling requirement of the first paragraph of § 112 *unless* there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.

The Office Action has made the bald assertion that it would not be possible to make the claimed compounds given the guidance provided by the present specification. The Office Action has failed to provide any ***reasons*** why the methodology set forth in the specification would not allow one of skill in the art to make the claimed diamondoid-containing base resins. Hence, this rejection must be regarded as improper and should be withdrawn.

Examiner's response to applicant's arguments:

In re Marzocchi et al, the issue is not the same as in this application. The examiner in In re Marzocchi et al questioned the breadth of the term "polyethylene amine" in view of the showing of only a one member of the class. The examiner in the instant application

notes that not one single method is found on pages 15-29 of the original specification to any method which would change one of the carbon atoms of the diamondoid nucleus to oxygen, nitrogen, boron or sulfur to form a heterodiamodoid instead of a diamondoid. Thus, the issue is applicant's failure to teach the manner of making the polymer in at least one process or pointing to the obtainability of such a heterodiamodoid for such derivation of side groups as found taught on page 15-29 for diamondoid nucleuses. The rejection is maintained because applicants failed to neither present any method of making the heterodiamondoids nucleuses of claim 71 nor direct one of skill to where such were obtained.

15. Claims 67-69 are allowed.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-0729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cynthia Hamilton
Primary Examiner
Art Unit 1752

March 10, 2006

CYNTHIA HAMILTON
PRIMARY EXAMINER